VICON

Installation and Operation Guide

XX236-00-01

V661V-Series Vandal-Proof Day/Night Analog Camera Dome

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Vicon Industries Inc. does not warrant that the functions contained in this equipment will meet your requirements or that the operation will be entirely error free or perform precisely as described in the documentation. This system has not been designed to be used in life-critical situations and must not be used for this purpose.

www.vicon-security.com

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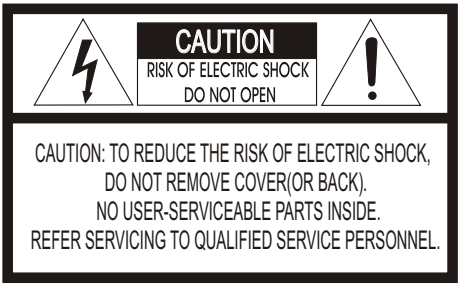
WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER(OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

EXPLANATION OF GRAPHICAL SYMBOLS

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

PRECAUTIONS

Safety ----------

Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by the qualified personnel before operating it any further.

Unplug the unit from the wall oulet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials(curtains, draperies) that may block the ventilation holes.

Height and vertical linearity controls located at the rear panel are for special adjustments by qualified personnel only.

Installation ----------

Do not install the unit in an extremely hot or humid place or in a place subject to excessive dust, mechanical vibration.

Cleaning ----------

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the unit.

Retain the original carton and packing materials for safe transport of this unit in the future.

FCC COMPLIANCE STATEMENT

FCC INFORMATION : THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

CAUTION : CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

CE COMPLIANCE STATEMENT

WARNING

THIS IS A CLASS A PRODUCT. IN A DOMESTIC ENVIRONMENT THIS PRODUCT MAY CAUSE RADIO INTERFERENCE IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4 . Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used,use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.
15. ***CAUTION THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU QRE QUALIFIED TO DO SO.***
16. ***Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.***

INTRODUCTION

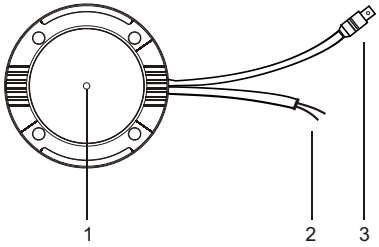
The camera provides high-quality images using Sony CCD technology especially designed for closed-circuit television (CCTV) and security surveillance applications.

Features:

- High resolution and high performance Sony Super HAD™ II Technology
- Excellent picture quality
- 600 lines(Color) of resolution
- 0.1 lux(Color), 0.04lux(B/W) @ F1.2 50IRE Sensitivity
- Auto electronic shutter [1/60(1/50) ~ 1/100,000] and manual electronic shutter modes
- OSD (On Screen Display)
- Auto and manual white balance modes
- DWDR
- OSD Font Color (16 Color)
- BLC (Back Light Compensation)
- Day&Night (Auto / DAY / NIGHT / EXT)
- Private Mask (8 position, 16 Colors)
- AGC (Auto Gain Control)
- MIRROR (ON/OFF)
- VIDEO OUT BNC
- Motion Detection(4 point)
- HLC (High Light Compensation)
- DPC (Dead Pixel Cancellation)
- 2.8~12mm A/I Varifocal Lens F1.2 (D&N Lens option)
- 9~22mm A/I Varifocal Lens F1.4 (D&N Lens option)
- Operates in AC24V +/- 10% / DC12V +/- 10%
- Use Certified / Listed Class 2 power source only
- Test monitor Output

IMPORTANT : The user of this camera is responsible for checking and complying with local, state, and federal laws and statutes concerning the recording and monitoring of audio signals.

CAMERA CONNECTIONS



1. Lens : 2.8~12mm or 9~22mm A/I Vari-focal lens for wide area monitoring.
(D&N with ICR model option)

2. Power : 24V AC input / 12V DC input
power source from a DC 12V or AC 24V ac +/-10% 60/50Hz +/-1Hz
Use Certified/Listed Class 2 power source only.

*If using DC 12V power adaptor,
use a power supply capable of supplying 5 Watts.

3. Video : BNC connector used to connect the camera to a monitor, switcher, etc.

REMINDER:
Never aim the camera directly into the sun.

INSTALLATION

1. Loosen the four Torx screws located midway up the front of the housing. Leave the screws intact.**(Fig. 1)**

2. Drill the mounting location using the supplied drill guide label. **(Fig. 3)**

3. Attach the housing to the ceiling using suitable fasteners, M6x35 tapping screws are supplied. Only use if they are suitable. **(Fig. 3)**

4. Reattach the housing and tighten the Torx screws. **(Fig. 2)**

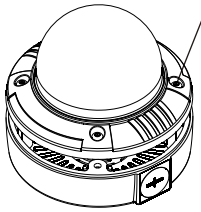


Figure 1

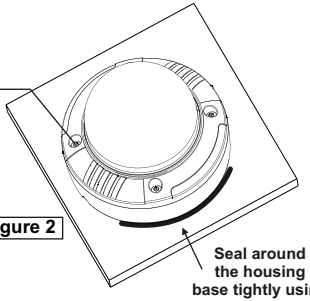


Figure 2

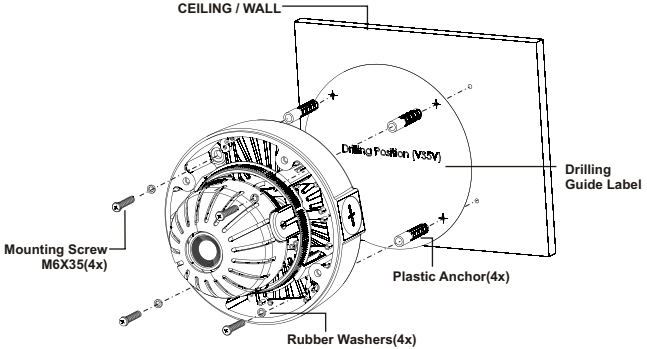
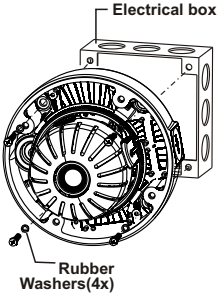
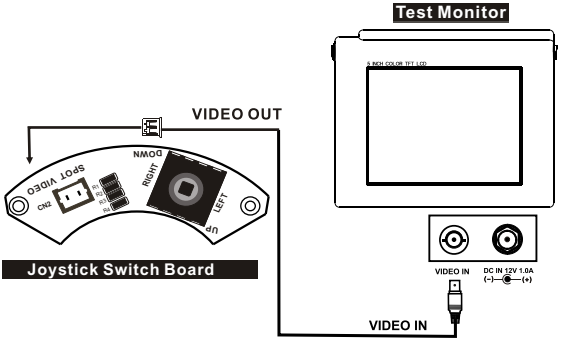


Figure 3

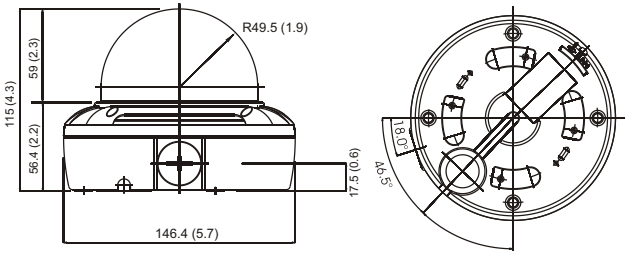
- **MOUNTING HOUSING TO AN ELECTRICAL BACK BOX**
  The housing can also be mounted on a 4 x 4 or 4 x 2 electrical box.



- Video out check-



EXTERNAL DIMENSION



Unit: mm (inches)

Window Size	0.1 in. (3.0mm thick), impact-resistant P.C(LEXAN) 3.9in (9.9cm)diameter
Cable Entry	One 1" opening holes
Weight - Unit: **Shipping:**	1.89 lb (0.86Kg) 2.33 lb (1.06Kg)

THE DEFINITION OF TERMS

White Balance
Compensates for deviations in the white color caused by changes in the color temperature of the light source so that the colors are reproduced correctly.

Exposure
Adjusts the images to the optimum brightness.

SHUTTER (Electronic Shutter)
Controls the integration time (exposure) of the photodiode array and reduces blooming, overexposure, and smear when capturing moving objects.

Flicker (FLC)
Avoids image flicker when there is a discrepancy between current and frequency

AGC (Automatic Gain Control)
Automatically adjusts (boosts) the video signal to the required level to produce a quality image in low light situations

Back Light Compensation (BLC)
Compensates for the brightness of the subjects with a large amount of background light that would make it practically impossible to see any details of the subjects. Adjusts the iris so that a distinctive subject and the background are delivered at the same time.

HLC (High Light Compensation)
When a high-brightness subject is shot, it may not be brought into focus because of the large surface area over which the high-brightness pixels are spread.
In cases like this, the high-brightness subject can be brought into focus by using this function.

LENS SHAD. (Lens Shading)
This function is the make brighter image of corner of screen.

Mask
Hides one or more areas that the user does not want to be displayed on screen.
Masks can be set with their own display area, color, darkness and mosaic processing.

Detection
Detects motion within the scene using one of the available methods.
Some methods trigger the Alarm output.

Sharpness
Reducing this parameter adjusts the noise level to smooth out the "noise" caused by the compression.
Caution should be taken not to reduce it too much, which may result in a blurred image.

Resolution
Controls the display of fine details. The higher the resolution, the higher level of details can be seen.

2D-NR (Digital Noise Reduction)
Adjusts the illuminance noise level in low light situations by reducing image noise in order to improve the image.

Nega
Reverses the color signals for the Chroma signal so the image looks like a “negative.”

DPC(Dead Pixel Cancellation)
white pixels whose frequency of occurrence varies in proportion to the temperature are sometimes observed when the devices are used under the influence of external factors or especially high temperatures. The white pixel detection and compensation function can automatically detect and compensate up to 64 white pixels with the highest detection level in sequence so as to maintain the image quality.

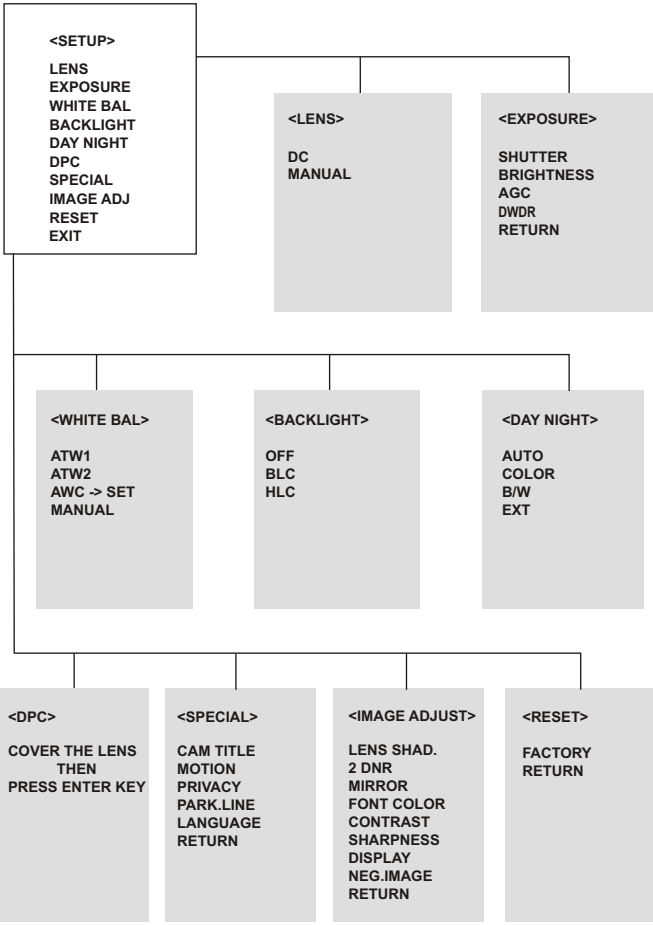
MIRROR
Reverses the image on the screen left to right or right to left
(as it would be seen in a mirror.)

DWDR
When the camera looks at a dark area, there may be loss of dark detail in the low-brightness subjects.
Using DWDR (on) may produce a higher quality image.

PARK. LINE
Using the camera to look out the rear of a vehicle, a lane can be viewed on the video image to see anything directly behind the vehicle. The location and size of the lane can be adjusted through the menu: LT/LB: left top/bottom; RT/RB: right top/bottom;
F: far; N: near; T: thickness of the line.

FONT COLOR
Adjust OSD menu color from a choice of 16 different colors.

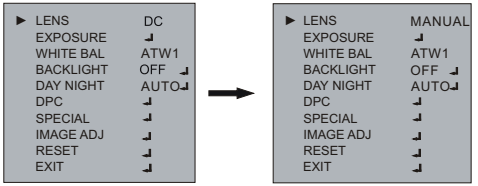
STRUCTURE OF THE SETUP MENU



LENS (Selection)

This function is used to adjust the brightness of the screen.

1. When the SETUP menu is displayed on the screen, please position the arrow to point to 'LENS' by using the UP and DOWN buttons.
2. Please select the type of the lens you wish to use by pressing the LEFT or RIGHT button.



Note *The brightness of the screen can be adjusted in DC mode.*

EXPOSURE

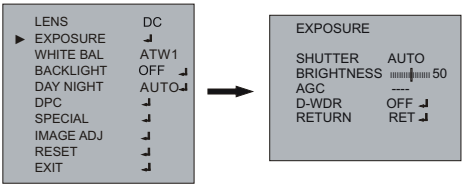
The EXPOSURE menu is used to set the automatic light control method for this camera.

1) SHUTTER Select the shutter mode.(Auto,1/60(50), FLK~ 1/100,000 sec)
Can be changed while in shutter mode.

2) BRIGHTNESS Adjust BRIGHTNESS level (0 ~ 255)
Can be adjusted while in DC/ manual lens mode.

3) AGC Auto gain control (OFF / LOW / MIDDLE / HIGH)

4) DWDR Digital Wide dynamic range(Xtended Dynamic Range)
OFF / ON



WHITE BAL

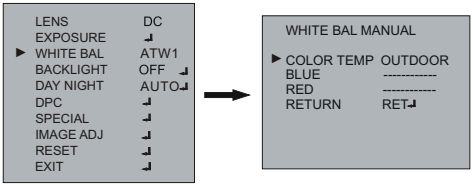
The screen color can be adjusted by using the WHITE BALANCE function.

1) ATW1 Set the color temperature 2500°K 10000°K
2) ATW2 Set the color temperature 2000°K 13000°K
3) AWC -> SET Please press the ENTER button white the camera is directed at a piece of white paper to obtain the optimum state under current illumination. if the environment including the light source is changed, you have to adjust the white balance again.

4) MANUAL Manual mode. User can change R and B Gain manually.

INDOOR Set the color temperature to 3200°K
OUTDOOR Set the color temperature to 6300°K

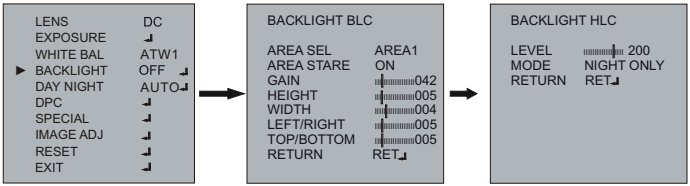
<WHITE BAL MANUAL MODE>



BACKLIGHT

1) BLC Prevents such a back light effect to secure a clear image under all illumination environments
2) HLC The function improves the identification capability of subjects facing a brightly lit situation by filtering out the strength of the light

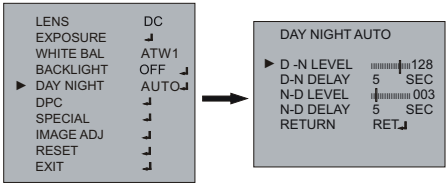
<BACKLIGHT MODE>



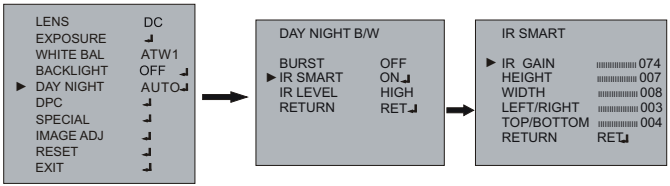
DAY NIGHT

The DAY/NIGHT menu is used to configure the day and night related setting for this camera.
This camera can turn the IR(infrared)filter on or off.
Mode : AUTO / COLOR / B/W / EXT (The EXT is not operating in this mode)

<DAY NIGHT AUTO MODE>



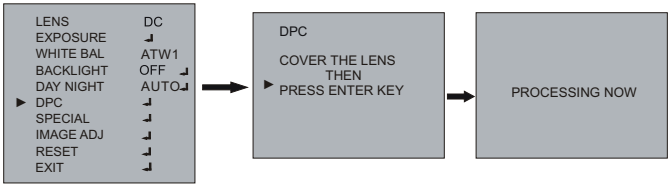
<DAY NIGHT B/W MODE>



*The IR LEVEL is not operating in DAY NIGHT B/W mode.

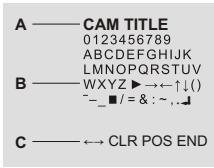
DPC

DPC Auto setting (Dead pixels are automatically removed)



SPECIAL

1) CAM TITLE



A. CAM TITLE
B. Character Table
C. Command Line

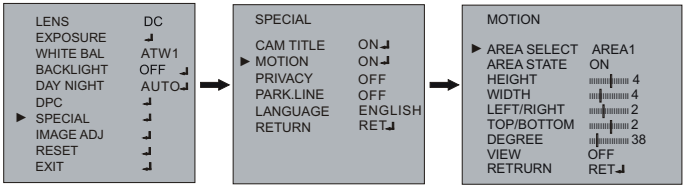
← : Move to left

→ : Move to right

CLR : Erase all characters
POS : Move the position of title
END : Save and End

2) MOTION

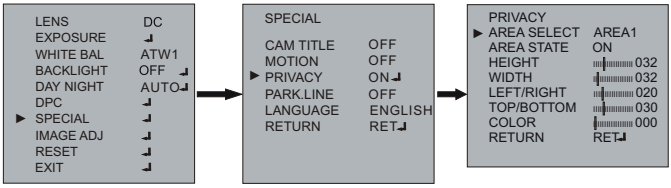
AREA SELECT	Select MD area number. (AREA1 ~AREA4)
AREA STATE	Select MD ON/OFF
HEIGHT	Adjust height of MD area
WIDTH	Adjust width of MD area
LEFT/RIGHT	Adjust the location of the MD area with boundary LEFT and RIGHT.
TOP/BOTTOM	Adjust the location of the MD area with boundary TOP and BOTTOM
DEGREE	Adjust sensitivity of MD area.(0~255)
VIEW	The screen displays with pink dots. When a motion is detected in the selected area, the pink dots are displayed on the screen.



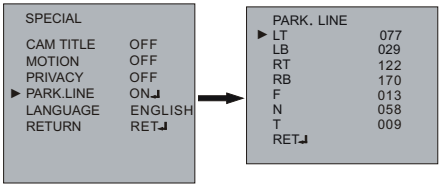
3) PRIVACY

AREA SELECT	Select MASK area number.(Area 1 ~ Area 8)
AREA STATE	Select MASK ON/OFF
HEIGHT	Adjust height of MASK area
WIDTH	Adjust width of MASK area
LEFT/RIGHT	Adjust the location of the MASK area with boundary LEFT and RIGHT
TOP/BOTTOM	Adjust the location of the MASK area with boundary TOP and BOTTOM.
COLOR	Select MASK color. (0~15)
RETURN	

<PRIVACY MODE>



4) PARK.LINE Select Pacring area



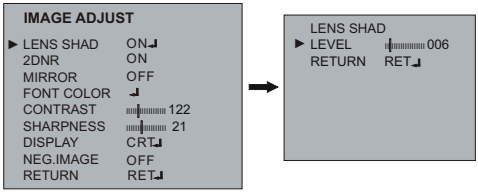
5) LANGUAGE ENGLISH or CHINESE

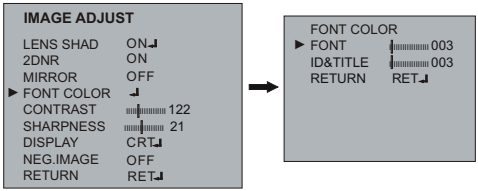
6) RETURN RET

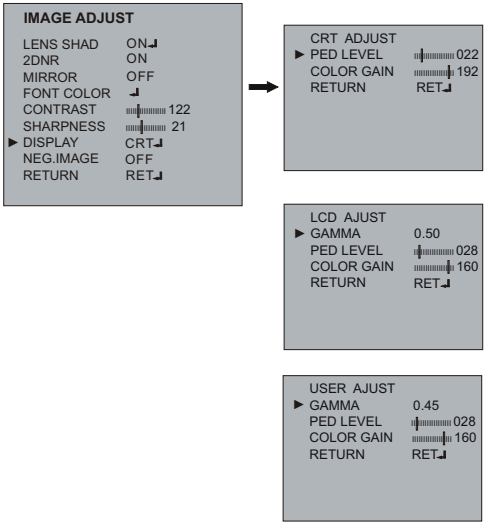
IMAGE ADJUST

1) LENS SHAD	Adjust Lens shading level (0~255)
2) 2DNR	Select 2DNR ON/OFF
3) MIRROR	Select MIRROR ON/OFF
4) FONT COLOR	Select FONT COLOR level (0~15)
	Select IDR TITLE level (0~15)
5) CONTRAST	Adjust CONTRAST level (0~255)
6) SHARPNESS	Adjust SHARPNESS level (0~31)
7) DISPLAY	Select DISPLAY mode (CRT /LCD/USER)
8) NEG. IMAGE	Select Negative image mode ON /OFF

<IMAGE ADJUST MODE>







RESET

1) FACTORY Returns to the level which was set by the manufacturer for shipment.

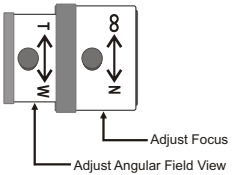
EXIT

1) EXIT Saves all setting and exits.

LENS ADJUSTMENT (OPTIONAL VARIFOCAL LENS)

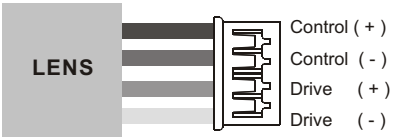
Field of view: Adjust setting from Tele (T) to Wide (W) field of View.

Focus: Adjust lens focus from near (N) to infinity (∞).



DC AUTO IRIS LENS

	2.8-12mm	9-22mm
Image Size	1/3" CCD	1/3" CCD
Focal Length	2.8-12mm ±5%	9-22mm ±5%
Aperture Ratio	1 : 1.2 ± 5%	1 : 1.4 ± 5%
Angular Field of View	DIAGONAL 2.8mm : 119.9° 12mm : 28.80°	DIAGONAL 9mm : 40.2° 22mm : 16.1°



SPECIFICATIONS

MODEL			NTSC	PAL
Power	Power source		AC24V ± 10% / DC12V ± 10%	
	Power consumption		200mA (2.5 Watts)	
General	Image sensor		1/3" Sony Super HAD Ⅱ	
	Total pixels		811(H) x 507(V)	795(H) x 595(V)
	Scanning system		2:1 interlace	
	Scanning frequency		15.734KHz(H) x 59.94Hz(V)	15.625KHz(H) x 50Hz(V)
	Sync. system		Internal	
	Electronic Shutter		1/60 ~ 1/100,000 sec.	1/50 ~ 1/100,000 sec.
	Resolution		6000 TV lines (COLOR)	
	Min. illumination		0.1 Lux(Color), 0.04 Lux(B/W) @ F1.2, 50IRE	
	Video Output		1.0 Vp-p (75 ohm, Composite)	
	S/N Ratio		More than 50dB (AGC off)	
	Camera Control		OSD (Joystick Switch)	
FUNCTION	Lens		MANUAL / DC	
	Shutter		AUTO, 1/60(1/50), Flickeless, 1/250 ~ 1/100,000sec	
	Brightness		0 ~255	
	Backlight		OFF / BLC / HLC(High Light Compensation)	
	AGC		OFF / LOW / MIDDLE / HIGH	
	DWDR		OFF/ON	
	White Balance		ATW1 / ATW2 / AWC->SET / MANUAL	
	Day & Night		AUTO / COLOR / B&W / EXT	
	D&N B/W	Burst	OFF / ON	
		IR Smart	OFF / ON	
		IR Smart Gain	0~255	
	SPECIAL	Camera Title	OFF / ON	
		Motion Detection	OFF / ON (4 area)	
		Privacy Masking	OFF / ON (8 position)	
		Parking Line	OFF / ON	
		Lens Shading	OFF / ON(0~255)	
		2DNR	OFF / ON	
		Mirror	OFF / ON	
		Font Color	FONT 16 COLOR, ID&TITLE 16 COLOR	
		Contrast	0~255	
		Sharpness	0~31	
		Display	CRT / LCD / USER	
		Nega Image	OFF / ON	
		Language	ENGLISH / CHINESE	
	DPC		Dead Pixel Cancellation (Auto 64 Points)	
	Reset		FACTORY RESET / RETURN	
Connector & etc.	Power input		2-pin wire	
	Video output		BNC connector	
	Lens Mount		Fixed mount	
	Lens		f=2.8~12mm F1.2~360 Varifocal, ICR (D&N) / f=9~22mm F1.4~360 Varifocal, ICR (D&N)	
	Operating temperature		14˚F ~ 122˚F (-10˚C ~ +50˚C)	
	Operating humidity		0 ~ 96% (non-condensing)	
	External Dimension		146(⌀) x 115(H) mm	
	Weight		860g	

Vicon Standard Equipment Warranty

Vicon Industries Inc. (the "Company") warrants your equipment to be free from defects in material and workmanship under Normal Use from the date of original retail purchase for a period of three years, with the following exceptions:

1. VCRs, all models: Labor and video heads warranted for 120 days from date of original retail purchase. All other parts warranted for one year from date of original retail purchase.
2. LCD and CRT monitors, all models: One year from date of original retail purchase.
3. Uninterruptible Power Supplies: Two years from date of original retail purchase.
4. VDR-700 Recorder Series: One year from date of original retail purchase.
5. V5616MUX: One year from date of original retail purchase.
6. Arecont Cameras: One year from date of original retail purchase.
7. FMC series fiber-optic media converters and associated accessories: Lifetime warranty.
8. For PTZ cameras, "Normal Use" excludes prolonged use of lens and pan-and-tilt motors, gear heads, and gears due to continuous use of "autopan" or "tour" modes of operation. Such continuous operation is outside the scope of this warranty.
9. Vicon Security Management Systems (SMS) All Models: All hardware is warranted for two years from date of original retail purchase.
10. Any product sold as "special" or not listed in Vicon's commercial price list: One year from date of original retail purchase.

Date of retail purchase is the date original end-user takes possession of the equipment, or, at the sole discretion of the Company, the date the equipment first becomes operational by the original end-user.

The sole remedy under this Warranty is that defective equipment be repaired or (at the Company's option) replaced, at Company repair centers, provided the equipment has been authorized for return by the Company, and the return shipment is prepaid in accordance with policy.

The Company will not be obligated to repair or replace equipment showing abuse or damage, or to parts which in the judgment of the Company are not defective, or any equipment which may have been tampered with, altered, misused, or been subject to unauthorized repair.

Software supplied either separately or in hardware is furnished on an "As Is" basis. Vicon does not warrant that such software shall be error (bug) free. Software support via telephone, if provided at no cost, may be discontinued at any time without notice at Vicon's sole discretion. Vicon reserves the right to make changes to its software in any of its products at any time and without notice.

This Warranty is in lieu of all other conditions and warranties express or implied as to the Goods, including any warranty of merchantability or fitness and the remedy specified in this Warranty is in lieu of all other remedies available to the Purchaser.

No one is authorized to assume any liability on behalf of the Company, or impose any obligations on it in connection with the sale of any Goods, other than that which is specified above. In no event will the Company be liable for indirect, special, incidental, consequential, or other damages, whether arising from interrupted equipment operation, loss of data, replacement of equipment or software, costs or repairs undertaken by the Purchaser, or other causes.

This warranty applies to all sales made by the Company or its dealers and shall be governed by the laws of New York State without regard to its conflict of laws principles. This Warranty shall be enforceable against the Company only in the courts located in the State of New York.

The form of this Warranty is effective March 1, 2011.

THE TERMS OF THIS WARRANTY APPLY ONLY TO SALES MADE WHILE THIS WARRANTY IS IN EFFECT. THIS WARRANTY SHALL BE OF NO EFFECT IF AT THE TIME OF SALE A DIFFERENT WARRANTY IS POSTED ON THE COMPANY'S WEBSITE, *WWW.VICON-SECURITY.COM*. IN THAT EVENT, THE TERMS OF THE POSTED WARRANTY SHALL APPLY EXCLUSIVELY.

Vicon Part Number: 8006-9010-03-09 Rev 0311

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